

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THIERRY GAUTHIER and REGIS BONIFAY

Appeal No. 2000-0014
Application No. 08/747,927

HEARD: JANUARY 10, 2001

Before CALVERT, COHEN, and GONZALES, Administrative Patent Judges.
COHEN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 15, all of the claims in the application.

Appellants' invention pertains to a device for injecting a hydrocarbon charge into a catalytic cracking reactor and to a method of catalytically cracking heavy hydrocarbon charges. A basic understanding of the invention can be derived from a reading of exemplary claims 1 and 15, respective copies of which appear in the APPENDIX to the main brief (Paper No. 14).

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As evidence of obviousness, the examiner has applied the documents listed below:

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|------------------------------|-----------|---------------|
| Krambeck et al (Krambeck) | 4,640,463 | Feb. 3, 1987 |
| Tsai | 4,792,436 | Dec. 20, 1988 |

The following rejection is before us for review.

Claims 1 through 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Krambeck in view of Tsai.

The full text of the examiner's rejection and response to the argument presented by appellants appears in the office action dated September 15, 1997 and the answer (Paper Nos. 7 and 15), while the complete statement of appellants' argument can be found in the main and reply briefs (Paper Nos. 14 and 16).

OPINION

In reaching our conclusion on the obviousness issue raised in this appeal, this panel of the board has carefully considered

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appellants' specification and claims,¹ the applied teachings,² and the respective viewpoints of appellants and the examiner. As a consequence of our review, we make the determination which follows.

We reverse the examiner's rejection of appellants' claims under 35 U.S.C. § 103(a).

The examiner has relied upon the teaching of Tsai as the basis for a suggestion to provide the Krambeck apparatus with a venturi. We fully appreciate the examiner's point of view. However, as a reading of the Tsai patent reveals, the patentee teaches a venturi-shaped throat as part of a valve for

¹ We fairly understand the metes and bounds of the claimed subject matter and are thus able to assess the obviousness rejection on appeal. Nevertheless, we have observed certain informalities deserving of correction which are addressed in the "REMAND TO THE EXAMINER" below.

² In our evaluation of the applied prior art, we have considered all of the disclosure of each document for what it would have fairly taught one of ordinary skill in the art. See In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966). Additionally, this panel of the board has taken into account not only the specific teachings, but also the inferences which one skilled in the art would reasonably have been expected to draw from the disclosure. See In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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controlling flow rate responsive to the movement of a stopper axially in the throat (Figs. 4 and 5). As we see it, the aforementioned particular valve teaching of Tsai simply would not have been suggestive of the selective inclusion of a venturi-shaped throat or element alone in the Krambeck apparatus, absent reliance upon impermissible hindsight. It is for this reason that the rejection before us must be reversed.

REMAND TO THE EXAMINER

We remand this application to the examiner to consider the following matters:

1. The recitations in claim 1, last line, "said venturi", claim 7, lines 2,3 "said venturis", claim 13, lines 2,3 "the venturi", and claim 14, line 5, "the venturi" do not correspond to the apparent antecedent basis "venturi element" in claim 1, line 7. The content of claim 14 does not appear in the drawing; 37 CFR § 1.83(a). In claim 15, last line, the antecedent for "therein" should be clarified; apparently, cracking of the charge takes place in a reactor.

2. Appellants' specification (page 4) appears to acknowledge that a "single-neck venturi injector" was known in the art prior to appellants' invention. The examiner should determine whether the claimed subject matter of claims 1 and 15, for example, would have been obvious under 35 U.S.C. § 103(a) based upon the acknowledged injector and the Krambeck teaching, collectively considered. In other words, a determination should be made as to whether the noted prior art would have been suggestive of (a) modifying a single-neck venturi injector to yield a plural-neck venturi injector, following the plural passageway (nozzle) teaching of Krambeck, and/or (b) modifying each passageway (nozzle) 16 of Krambeck to include a known venturi therein, in accordance with the acknowledged known practice. In assessing each of the remaining claims 2 through 14, the examiner should consider the claim content relative to the referenced prior art, supra, by itself or with other known art.

In summary, this panel of the board has reversed the rejection of appellants' claims under 35 U.S.C. § 103(a), and remanded the application to the examiner for reasons given above.

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The decision of the examiner is reversed.

REVERSED AND REMANDED

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| IAN A. CALVERT |) | |
| Administrative Patent Judge |) | |
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| |) | |
| IRWIN CHARLES COHEN |) | BOARD OF PATENT |
| Administrative Patent Judge |) | APPEALS |
| |) | AND |
| |) | INTERFERENCES |
| |) | |
| |) | |
| JOHN GONZALES |) | |
| Administrative Patent Judge |) | |

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ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209